

vestments of all years are in dollars representing greater investment sacrifice than 1945 dollars.

The second numerical line records the number of equivalent 1945 dollars invested in each year, the third numerical line cumulates the annual investments in nominal dollars which adds up to \$36,414 thousand in 1945.

The fourth numerical line cumulates the annual investment in 1945 dollars found in the second line. It will be seen that in each year the cumulative total in 1945 dollars exceeds by a substantial margin, the cumulation of nominal dollars invested up to that year and in service December 31, 1945.

Relating the cumulative 1945 dollars, as of 1945, to the nominal dollars of the same year, cumulated, shows that the cumulative investment of 1945 dollars exceeded the cumulation of nominal dollars in 1945 by 37.6 percent.

The cumulative total of \$50,093 thousand in the fourth line under the year 1945 fairly measures and expresses, in my opinion, the investment of electric plant in service on December 31, 1945 in 1945 dollars.

24-Q. Is this figure of \$50,093 thousand the cost of reproduction of the electric plant in service as of December 31, 1945?

24-A. No, it is not. I had no intention of reflecting cost of reproduction which is an entirely different matter and this exhibit does not reflect cost of reproduction. This calculation reflects no appreciation [22300] (page 15) in value and the figure found does not measure the value of electric plant. This determination sets forth the number of 1945 dollars which measure the investment sacrifice of the dollars which investors actually gave up. I have merely calculated the number of dollars which would now command the same amount of goods in exchange as the dollars in-

vestment would have commanded at the time of their investment. Any small number of dollars would mean a sacrifice on the part of investors.

Reflecting the changed size of the dollar only operates to keep the actual investment quoted in terms of the same amount of *real* sacrifice of goods and services. It is a method of avoiding arbitrary devaluation of the actual sacrifice and in no way attempts to reflect revaluation, appreciation or present value. It is merely a way of avoiding arbitrary economic write-down of the basis of return. It only corrects for the bookkeeping fiction that all dollars are alike and measure the same amount of investment.

25-Q. Will you briefly explain the difference between your determination in this exhibit and cost of reproduction?

25-A. Cost of reproduction is evidence of present value and is determined by applying the present cost of the components of property to an inventory of the property components. The difference is that the determination of the equivalent 1945 dollar investment does not attempt or presume to reflect any *actual* increases in value; it reflects only the sacrifice made by the investment as measured by the size of the present day dollars in which size dollar the return is paid.

[22301] (page 16)

The price of goods can increase for two reasons, (1) an increase in the scarcity of goods, and (2) a decrease in the economic size of the dollar. This exhibit does not purport to reflect any actual increase in value, it only measures the investment made in a single size dollar of the purchasing power of 1945. It attempts only to establish what number of 1945 dollars measure the accounted for investment sacrifice made for the plant in use December 31, 1945.

26-Q. Is your determination in this exhibit the same as trended original cost?

26-A. No, it is not. Trending original cost involves the use of the current prices of commodities and labor which enter into the construction of a plant. Trended original cost would also reflect actual increases in value. It would reflect the extent to which components of plant had increased (or decreased) in scarcity as well as that increase (or decrease) in price which was nothing but the reflection of changes in the size of the dollar.

There is no reason or excuse, in my opinion, for identifying or confusing a calculation of the fair original cost or investment in homogeneous current dollars with either cost of reproduction or trended original cost. They are not the same and I have not pretended that they are the same.

27-Q. In your opinion is the fair original cost in homogeneous current dollars a useful fact in the determination of a fair return under regulation?

[22302] (page 17)

27-A. Yes, it is useful evidence for the determination of a fair return.

28-Q. Is it, in your opinion, useful for the determination of the rate base or the fair rate of return?

28-A. The fact as to the fair original cost or investment in homogeneous current dollars is alternatively useful for both purposes. It is useful evidence as to a fair rate base in terms of current dollars and useful for the calculation of a fair rate of return if applied to a rate base not expressed in dollars of current purchasing power. Unless the decreased significance of the dollar as a unit of economic measurement is recognized in either the rate base or the rate of return the *real* income on the investment will be arbitrary.

trarily decreased. In the instance of the Pennsylvania Water & Power Company, as far as electric plant alone is concerned, the real income would be decreased by the complement of the percentage relationship of \$36,414 thousand to \$50,093 thousand (72.7) or 27.3 percent.

Recognition of the fact that the actual investment made and remaining in service is measured and measurable by 50,093 thousand 1945 dollars, the size of dollar in which the return is paid maintains the economic parity of the investment.

[22307]

PENNSYLVANIA WATER & POWER COMPANY

AND

SUSQUEHANNA TRANSMISSION COMPANY
OF MARYLAND

ORIGINAL COST OF ELECTRIC PLANT IN PRESENT DOLLARS
THE PURCHASING POWER OF THE DOLLAR AS MEASURED BY
WHOLESALE PRICES AS REFLECTED BY A SEVEN-YEAR
MOVING AVERAGE

1905-1945

Year	Original Investment in Electric Plant (Nominal Dollars)	Purchasing Power of the Dollar ^b (1945 = 100)	Original Investment in Electric Plant (1945 Dollars)
1905	2,135,006	173.2¢	3,697,830
1906	2,150,746	169.8	3,651,967
1907	3,212,023	166.0	5,331,958
1908	680,006	163.9	1,114,530
1909	975,871	160.6	1,567,249
1910	3,025,472	157.9	4,777,220
1911	598,307	156.9	938,744
1912	598,307	154.6	924,983
1913	864,371	149.9	1,205,752
1914	757,204	141.4	1,070,686
1915	35,927	129.5	46,526
1916	198,295	118.6	235,178

(a) Original cost of electric plant surviving as of December 31, 1945—Data supplied by Company.

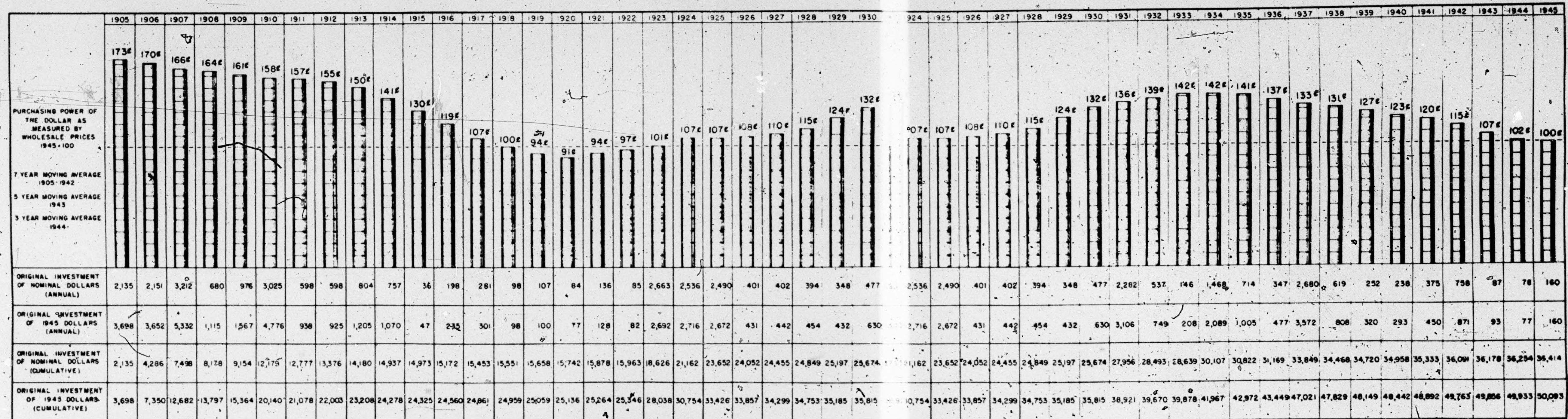
(b) Measured by wholesale prices as reflected by a seven-year moving average (B. L. S. Index).

Year	Original Investment in Electric Plant * (Nominal Dollars)	Purchasing Power of the Dollar * (1945 = 100)	Original Investment in Electric Plant (1945 Dollars)
1917	281,514	106.8¢	300,657
1918	97,541	100.0	97,541
1919	107,359	93.9	100,810
1920	84,486	91.2	77,051
1921	135,666	93.8	127,255
1922	84,841	96.8	82,126
1923	2,663,258	101.1	2,692,554
1924	2,535,879	107.1	2,715,926
1925	2,489,580	107.3	2,671,319
1926	400,612	107.5	430,658
1927	402,277	109.9	442,102
1928	394,249	115.2	454,175
1929	347,892	124.0	431,386
1930	477,712	131.7	629,147
1931	2,282,093	136.1	3,105,929
1932	536,738	139.4	748,213
1933	146,048	142.2	207,680
1934	1,468,095	142.3	2,089,099
1935	714,408	140.8	1,005,886
1936	347,617	137.0	476,235
1937	2,679,646	133.3	3,571,968
1938	618,999	130.5	807,794
1939	252,136	126.9	319,961
[22308] (page 2)			
1940	237,875	122.9	292,348
1941	375,231	119.9	449,902
1942	757,974	114.9	870,912
1943	86,984	106.6	92,725
1944	75,666	101.5	76,801
1945	160,323	100.0	160,323
Totals	36,414,232		50,091,106

PENNSYLVANIA WATER & POWER COMPANY
ORIGINAL COST OF ELECTRIC PLANT IN PRESENT DOLLARS

B POWER COMPANY
PLANT IN PRESENT DOLLARS

THE PURCHASING POWER OF THE DOLLAR AS MEASURED BY WHOLESALE PRICES AS REFLECTED BY A SEVEN-YEAR MOVING AVERAGE
1905-1945



(ORIGINAL INVESTMENT IN THOUSANDS OF DOLLARS)

THOUSANDS OF DOLLARS



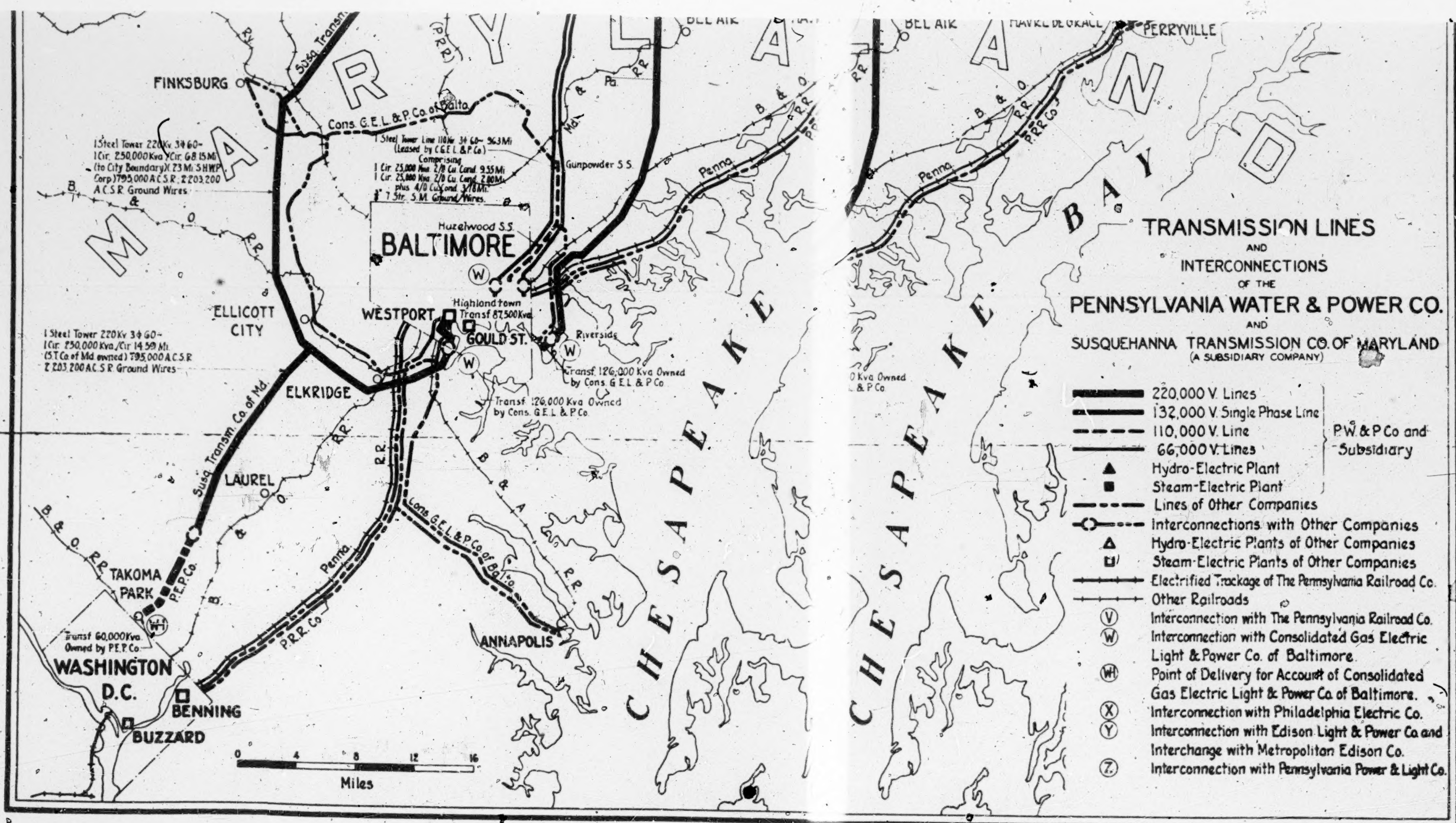
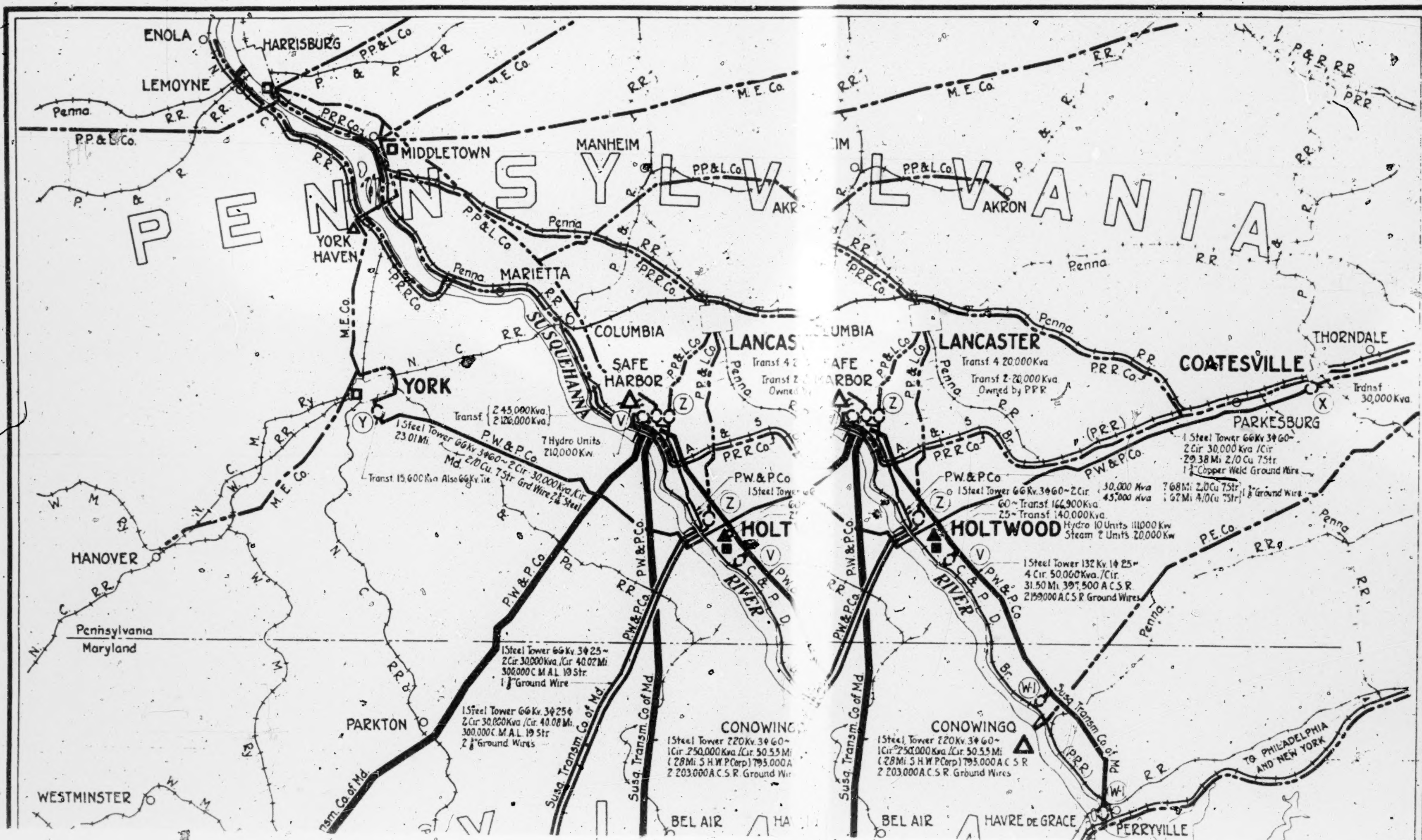


Exhibit No. 43

3389

EXHIBIT NO. 46.

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[22374]

FEDERAL POWER COMMISSION

Docket No. IT-5915

—
Pennsylvania Water & Power Company

RATE OF RETURN STUDY

April 15, 1946

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Note

See next line, 1st exposure for p. 3391.

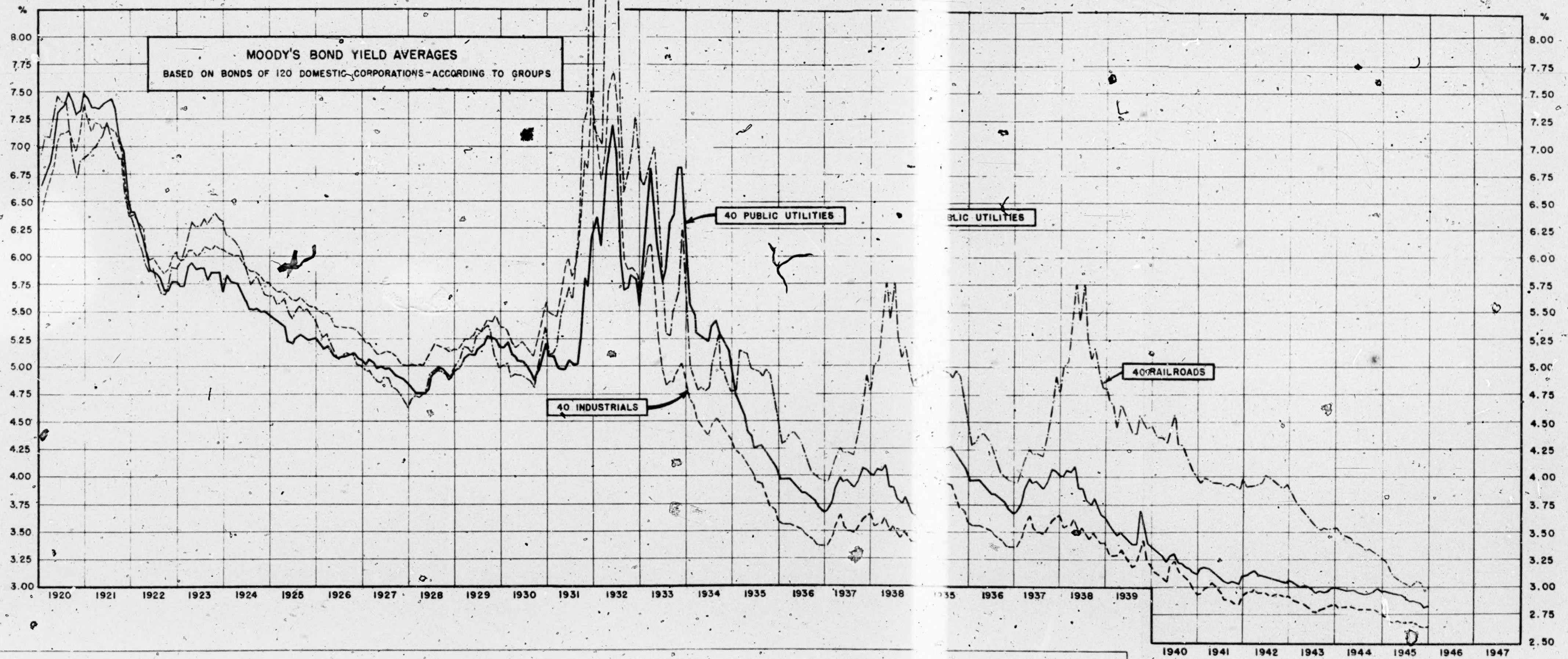


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MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - ACCORDING TO GROUPS40 INDUSTRIALS

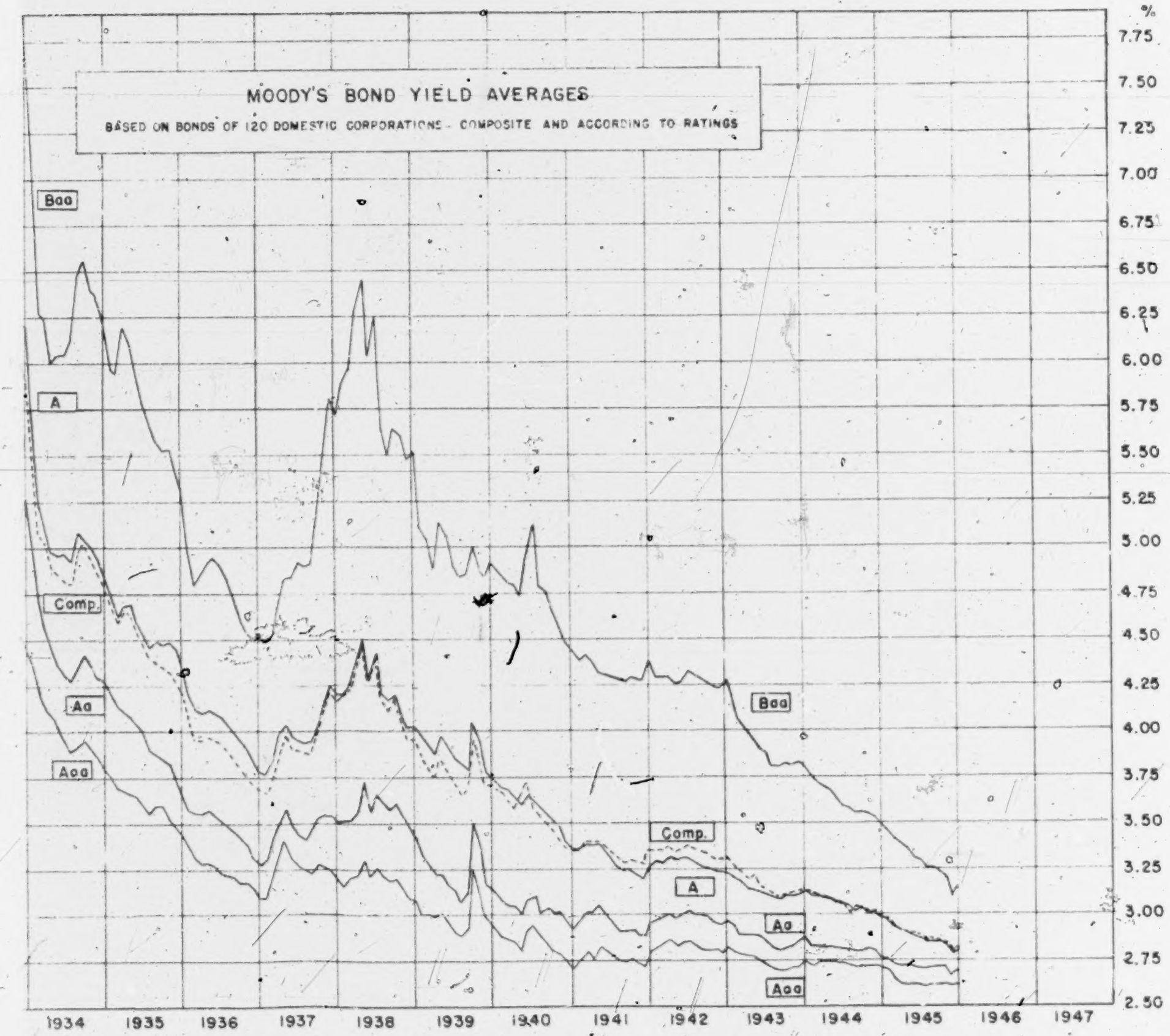
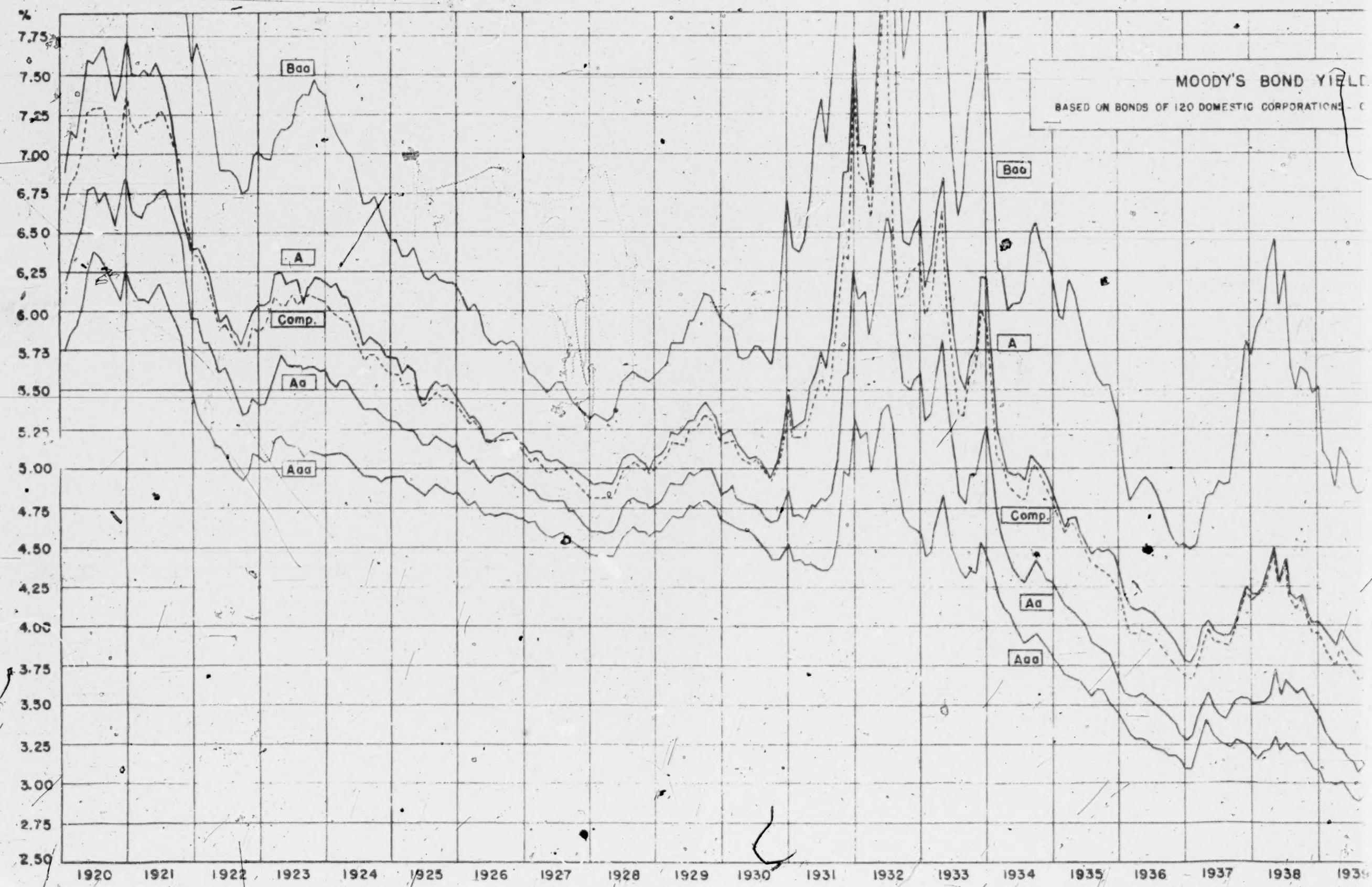
<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	6.39	6.57	6.66	6.78	7.01	7.11	7.12	7.15	7.05	6.97	7.11	7.39	6.94
1921	7.27	7.14	7.22	7.21	7.16	7.19	7.17	7.13	7.06	6.93	6.61	6.36	7.04
1922	6.37	6.32	6.25	6.08	5.96	5.99	5.91	5.88	5.79	5.88	5.98	6.03	6.04
1923	5.95	5.97	6.04	6.05	5.99	6.01	6.07	6.07	6.05	6.10	6.07	6.06	6.04
1924	6.03	6.01	6.00	6.00	5.94	5.89	5.86	5.86	5.84	5.81	5.76	5.75	5.90
1925	5.72	5.66	5.68	5.66	5.64	5.59	5.59	5.61	5.59	5.54	5.54	5.53	5.61
1926	5.49	5.46	5.49	5.43	5.35	5.34	5.35	5.34	5.34	5.33	5.32	5.26	5.37
1927	5.21	5.20	5.15	5.10	5.10	5.11	5.12	5.10	5.07	5.02	5.01	5.00	5.10
1928	5.01	5.00	5.01	5.00	5.07	5.14	5.19	5.18	5.16	5.14	5.13	5.15	5.10
1929	5.14	5.18	5.24	5.24	5.27	5.34	5.32	5.34	5.41	5.40	5.45	5.35	5.31
1930	5.34	5.32	5.23	5.16	5.17	5.21	5.17	5.12	5.08	5.24	5.37	5.58	5.25
1931	5.41	5.40	5.44	5.65	5.89	5.97	5.79	5.93	6.33	6.86	6.79	7.51	6.08
1932	7.20	7.02	6.71	7.02	7.55	7.68	7.40	6.37	5.96	5.89	5.90	5.85	6.71
1933	5.66	5.83	6.10	6.10	5.60	5.21	4.95	4.84	4.87	4.87	4.99	5.03	5.34
1934	4.87	4.73	4.65	4.53	4.47	4.41	4.39	4.47	4.52	4.47	4.40	4.37	4.52
1935	4.31	4.24	4.20	4.18	4.11	4.07	3.95	3.94	3.91	3.83	3.73	3.71	4.02
1936	3.59	3.57	3.56	3.57	3.55	3.54	3.52	3.48	3.44	3.42	3.37	3.37	3.50
1937	3.36	3.46	3.55	3.65	3.55	3.51	3.50	3.47	3.55	3.63	3.65	3.66	3.55
1938	3.54	3.57	3.58	3.64	3.51	3.55	3.48	3.43	3.50	3.43	3.39	3.40	3.50
1939	3.51	3.29	3.29	3.35	3.30	3.23	3.17	3.21	3.57	3.43	3.25	3.21	3.30
1940	3.14	3.12	3.09	3.05	3.20	3.25	3.15	3.12	3.10	3.06	2.98	2.93	3.10
1941	2.96	3.00	3.02	3.06	3.02	2.96	2.90	2.90	2.88	2.85	2.85	2.94	2.95
1942	2.97	2.98	3.00	2.96	2.97	2.97	2.94	2.94	2.95	2.94	2.93	2.94	2.96
1943	2.90	2.88	2.87	2.87	2.86	2.84	2.80	2.79	2.82	2.82	2.85	2.86	2.85
1944	2.83	2.83	2.83	2.83	2.81	2.79	2.79	2.79	2.79	2.79	2.77	2.74	2.80
1945	2.73	2.69	2.68	2.69	2.68	2.68	2.68	2.68	2.67	2.65	2.64	2.64	2.68

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - ACCORDING TO GROUPS40 RAILROADS

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	6.93	7.09	7.08	7.26	7.46	7.40	7.39	7.23	6.91	6.72	6.86	7.15	7.12
1921	6.91	6.97	6.99	7.06	7.08	7.22	7.10	6.97	6.90	6.88	6.52	6.37	6.91
1922	6.28	6.11	6.07	5.91	5.85	5.88	5.77	5.66	5.65	5.72	5.89	5.88	5.89
1923	5.94	6.00	6.16	6.30	6.26	6.27	6.33	6.28	6.33	6.39	6.34	6.31	6.24
1924	6.18	6.17	6.14	6.09	6.02	5.88	5.73	5.78	5.81	5.72	5.65	5.63	5.90
1925	5.63	5.56	5.57	5.60	5.48	5.41	5.48	5.54	5.50	5.52	5.46	5.42	5.51
1926	5.33	5.26	5.28	5.18	5.09	5.06	5.08	5.11	5.10	5.10	5.02	5.00	5.13
1927	4.96	4.95	4.90	4.86	4.85	4.90	4.89	4.80	4.79	4.75	4.68	4.66	4.83
1928	4.70	4.73	4.72	4.74	4.78	4.91	4.94	4.98	4.94	4.93	4.87	4.95	4.85
1929	5.00	5.06	5.17	5.16	5.12	5.26	5.28	5.34	5.36	5.30	5.11	4.99	5.18
1930	5.00	5.02	4.89	4.92	4.91	4.91	4.89	4.86	4.80	4.91	5.10	5.34	4.96
1931	5.09	5.11	5.17	5.45	5.60	5.70	5.62	6.01	6.43	7.20	7.28	8.46	6.09
1932	7.20	7.10	7.04	8.24	9.30	9.14	8.70	6.96	6.58	6.75	7.00	7.27	7.61
1933	6.71	6.65	6.87	7.00	6.11	5.68	5.31	5.28	5.54	5.67	6.25	5.95	6.09
1934	5.45	4.99	4.91	4.78	4.81	4.78	4.80	5.05	5.15	4.99	4.96	4.86	4.96
1935	4.75	4.81	5.14	5.14	5.12	4.99	4.97	4.95	4.91	4.97	4.90	4.73	4.95
1936	4.50	4.31	4.32	4.38	4.40	4.35	4.31	4.22	4.09	4.02	4.00	3.96	4.24
1937	3.95	4.03	4.15	4.26	4.22	4.22	4.21	4.28	4.43	4.66	4.91	4.79	4.34
1938	5.02	5.06	5.14	5.75	5.14	5.75	5.25	5.09	5.18	4.94	4.83	4.82	5.21
1939	4.70	4.63	4.46	4.66	4.60	4.47	4.42	4.41	4.58	4.51	4.44	4.47	4.53
1940	4.39	4.37	4.37	4.33	4.46	4.57	4.32	4.30	4.23	4.15	4.07	4.03	4.30
1941	3.96	4.00	3.98	3.96	3.95	3.95	3.92	3.92	3.95	3.93	3.91	3.99	3.95
1942	3.93	3.94	3.94	3.95	3.97	4.03	4.02	3.98	3.95	3.92	3.93	3.96	3.96
1943	3.86	3.78	3.73	3.69	3.64	3.61	3.56	3.55	3.56	3.55	3.56	3.56	3.64
1944	3.51	3.49	3.48	3.45	3.41	3.40	3.37	3.34	3.35	3.32	3.29	3.25	3.39
1945	3.23	3.16	3.11	3.07	3.05	3.03	3.00	3.02	3.05	3.03	2.96	2.99	3.06

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - ACCORDING TO GROUPS40 UTILITIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
1920	6.63	6.76	6.83	7.03	7.30	7.35	7.37	7.48	7.40	7.28	7.31	7.49	7.19
1921	7.43	7.35	7.35	7.34	7.38	7.41	7.42	7.34	7.08	6.95	6.58	6.37	7.17
1922	6.40	6.31	6.20	6.05	5.87	5.87	5.83	5.78	5.68	5.67	5.77	5.76	5.93
1923	5.72	5.73	5.90	5.93	5.88	5.89	5.89	5.77	5.85	5.85	5.85	5.86	5.83
1924	5.82	5.77	5.76	5.74	5.67	5.59	5.52	5.51	5.52	5.48	5.49	5.46	5.61
1925	5.44	5.41	5.39	5.35	5.22	5.20	5.25	5.28	5.26	5.24	5.24	5.25	5.29
1926	5.20	5.15	5.17	5.12	5.08	5.06	5.08	5.09	5.10	5.11	5.07	5.05	5.11
1927	5.02	5.05	5.03	4.98	4.99	4.98	4.98	4.94	4.92	4.89	4.88	4.84	4.96
1928	4.79	4.77	4.75	4.75	4.79	4.90	4.93	4.97	4.96	4.93	4.90	4.95	4.87
1929	4.96	5.00	5.07	5.09	5.09	5.15	5.16	5.22	5.27	5.25	5.24	5.17	5.14
1930	5.17	5.20	5.10	5.08	5.04	5.03	5.00	4.94	4.87	4.93	5.05	5.21	5.05
1931	5.09	5.09	4.99	4.97	4.97	5.04	5.00	5.01	5.24	5.79	5.72	5.31	5.27
1932	6.20	6.36	6.10	6.66	6.98	7.21	6.97	6.03	5.69	5.72	5.84	5.80	6.30
1933	5.56	5.90	6.41	6.82	6.34	5.99	5.78	5.90	6.31	6.38	6.82	6.82	6.25
1934	6.24	5.50	5.50	5.31	5.27	5.24	5.23	5.37	5.43	5.30	5.22	5.15	5.40
1935	4.97	4.76	4.65	4.60	4.43	4.37	4.26	4.28	4.27	4.24	4.17	4.12	4.43
1936	4.02	3.98	3.98	3.97	3.95	3.91	3.86	3.85	3.83	3.80	3.74	3.69	3.88
1937	3.68	3.76	3.90	3.99	3.95	3.97	3.92	3.89	3.96	4.08	4.06	4.03	3.93
1938	4.01	4.07	4.05	4.11	3.90	3.90	3.79	3.76	3.82	3.73	3.65	3.63	3.87
1939	3.57	3.52	3.48	3.51	3.45	3.42	3.39	3.40	3.70	3.57	3.41	3.38	3.48
1940	3.35	3.33	3.29	3.24	3.30	3.33	3.23	3.23	3.19	3.18	3.14	3.13	3.25
1941	3.17	3.19	3.17	3.16	3.13	3.10	3.07	3.06	3.07	3.05	3.04	3.12	3.11
1942	3.13	3.15	3.17	3.13	3.13	3.12	3.09	3.09	3.08	3.07	3.06	3.07	3.11
1943	3.05	3.02	3.00	3.01	3.00	2.98	2.95	2.96	2.96	2.96	2.98	3.00	2.99
1944	2.99	2.98	2.97	2.97	2.97	2.96	2.95	2.94	2.94	2.96	2.98	2.96	2.97
1945	2.97	2.95	2.94	2.94	2.93	2.89	2.87	2.86	2.85	2.84	2.79	2.81	2.89



MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - COMPOSITE AND ACCORDING TO RATINGSCOMPOSITE

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	6.65	6.81	6.86	7.02	7.26	7.29	7.29	7.29	7.12	6.99	7.09	7.34	7.08
1921	7.20	7.15	7.19	7.20	7.21	7.27	7.23	7.14	7.02	6.92	6.57	6.36	7.04
1922	6.35	6.24	6.17	6.01	5.89	5.92	5.84	5.78	5.71	5.76	5.88	5.89	5.95
1923	5.87	5.90	6.03	6.09	6.04	6.05	6.10	6.04	6.08	6.11	6.09	6.08	6.04
1924	6.01	5.98	5.96	5.94	5.88	5.79	5.70	5.72	5.72	5.67	5.63	5.61	5.81
1925	5.60	5.54	5.54	5.54	5.45	5.40	5.44	5.48	5.45	5.43	5.42	5.40	5.47
1926	5.34	5.29	5.31	5.25	5.17	5.16	5.17	5.18	5.18	5.18	5.14	5.10	5.21
1927	5.06	5.07	5.03	4.98	4.98	5.00	5.00	4.95	4.93	4.89	4.86	4.83	4.97
1928	4.83	4.83	4.82	4.83	4.88	4.99	5.02	5.04	5.02	5.00	4.97	5.01	4.94
1929	5.04	5.08	5.16	5.16	5.16	5.25	5.25	5.30	5.34	5.32	5.29	5.17	5.21
1930	5.17	5.18	5.08	5.05	5.04	5.05	5.02	4.97	4.92	5.02	5.17	5.38	5.09
1931	5.20	5.20	5.20	5.35	5.48	5.57	5.47	5.65	6.00	6.62	6.60	7.43	5.81
1932	6.87	6.83	6.82	7.31	7.94	8.01	7.69	6.45	6.08	6.12	6.24	6.31	6.87
1933	5.98	6.13	6.46	6.64	6.02	5.63	5.35	5.34	5.57	5.64	6.02	5.93	5.89
1934	5.52	5.10	5.02	4.87	4.85	4.81	4.81	4.96	5.03	4.92	4.86	4.79	4.96
1935	4.68	4.60	4.66	4.64	4.55	4.47	4.40	4.39	4.36	4.34	4.27	4.19	4.46
1936	4.04	3.95	3.95	3.97	3.96	3.94	3.90	3.85	3.79	3.75	3.71	3.67	3.87
1937	3.67	3.75	3.87	3.97	3.91	3.90	3.88	3.88	3.98	4.12	4.21	4.26	3.94
1938	4.19	4.23	4.36	4.50	4.28	4.40	4.17	4.09	4.17	4.03	3.95	3.95	4.19
1939	3.86	3.81	3.74	3.84	3.78	3.71	3.66	3.67	3.95	3.83	3.70	3.69	3.77
1940	3.63	3.60	3.58	3.54	3.65	3.72	3.57	3.55	3.50	3.46	3.40	3.36	3.55
1941	3.36	3.40	3.39	3.39	3.37	3.34	3.30	3.29	3.30	3.27	3.26	3.35	3.34
1942	3.35	3.35	3.37	3.34	3.36	3.37	3.35	3.34	3.33	3.31	3.31	3.32	3.34
1943	3.27	3.23	3.20	3.19	3.16	3.14	3.11	3.10	3.11	3.11	3.13	3.14	3.16
1944	3.11	3.10	3.09	3.08	3.06	3.05	3.02	3.04	3.03	3.02	3.02	2.98	3.05
1945	2.97	2.93	2.91	2.90	2.89	2.87	2.85	2.86	2.85	2.84	2.80	2.82	2.87

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - COMPOSITE AND ACCORDING TO RATINGS30 DOMESTIC CORPORATIONS - RATING AAA

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	5.75	5.86	5.92	6.04	6.25	6.38	6.34	6.30	6.22	6.05	6.08	6.26	6.12
1921	6.14	6.08	6.08	6.06	6.11	6.18	6.12	5.99	5.93	5.84	5.60	5.50	5.97
1922	5.34	5.29	5.23	5.15	5.13	5.08	5.00	4.96	4.93	4.97	5.09	5.08	5.10
1923	5.04	5.07	5.18	5.22	5.16	5.15	5.14	5.08	5.12	5.11	5.09	5.09	5.12
1924	5.09	5.09	5.10	5.08	5.04	4.99	4.95	4.95	4.95	4.92	4.94	4.95	5.00
1925	4.95	4.95	4.91	4.87	4.83	4.83	4.87	4.90	4.87	4.85	4.84	4.85	4.88
1926	4.82	4.77	4.79	4.74	4.71	4.72	4.71	4.72	4.72	4.71	4.68	4.68	4.73
1927	4.66	4.67	4.62	4.58	4.57	4.58	4.60	4.56	4.54	4.51	4.49	4.46	4.57
1928	4.46	4.46	4.46	4.46	4.49	4.57	4.61	4.64	4.61	4.61	4.58	4.61	4.55
1929	4.62	4.66	4.70	4.69	4.70	4.77	4.77	4.79	4.80	4.77	4.76	4.67	4.73
1930	4.66	4.69	4.62	4.60	4.60	4.57	4.52	4.47	4.42	4.42	4.47	4.52	4.55
1931	4.42	4.43	4.39	4.40	4.37	4.36	4.36	4.40	4.55	4.99	4.94	5.32	4.58
1932	5.20	5.23	4.98	5.17	5.36	5.41	5.26	4.91	4.70	4.64	4.63	4.59	5.01
1933	4.44	4.48	4.68	4.78	4.63	4.46	4.36	4.30	4.36	4.34	4.54	4.50	4.49
1934	4.35	4.20	4.13	4.07	4.01	3.93	3.89	3.93	3.96	3.90	3.86	3.81	4.00
1935	3.77	3.69	3.67	3.66	3.65	3.61	3.56	3.60	3.59	3.52	3.47	3.44	3.60
1936	3.37	3.32	3.29	3.29	3.27	3.24	3.23	3.21	3.18	3.18	3.15	3.10	3.24
1937	3.10	3.22	3.32	3.42	3.33	3.28	3.25	3.24	3.28	3.27	3.24	3.21	3.26
1938	3.17	3.20	3.22	3.30	3.22	3.26	3.22	3.18	3.21	3.15	3.10	3.08	3.19
1939	3.01	3.01	2.99	3.02	2.97	2.92	2.89	2.93	3.25	3.15	3.00	2.94	3.02
1940	2.88	2.86	2.84	2.82	2.93	2.96	2.88	2.85	2.82	2.79	2.75	2.71	2.84
1941	2.75	2.78	2.80	2.82	2.81	2.77	2.74	2.74	2.75	2.73	2.72	2.80	2.77
1942	2.83	2.85	2.86	2.83	2.85	2.85	2.83	2.81	2.80	2.80	2.79	2.81	2.83
1943	2.79	2.77	2.76	2.76	2.74	2.72	2.69	2.69	2.69	2.70	2.71	2.74	2.73
1944	2.72	2.74	2.74	2.74	2.73	2.73	2.72	2.71	2.72	2.72	2.72	2.70	2.72
1945	2.69	2.65	2.62	2.61	2.62	2.61	2.60	2.61	2.62	2.62	2.61	2.62	2.62

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - COMPOSITE AND ACCORDING TO RATINGS30 DOMESTIC CORPORATIONS - RATING AA

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	6.19	6.28	6.42	6.54	6.78	6.79	6.69	6.76	6.65	6.56	6.63	6.84	6.59
1921	6.64	6.60	6.59	6.68	6.69	6.76	6.78	6.64	6.56	6.47	6.18	5.95	6.55
1922	5.94	5.80	5.79	5.71	5.62	5.64	5.57	5.44	5.35	5.36	5.45	5.41	5.59
1923	5.42	5.49	5.62	5.73	5.66	5.66	5.69	5.63	5.65	5.65	5.63	5.63	5.62
1924	5.55	5.52	5.57	5.56	5.49	5.43	5.38	5.38	5.38	5.35	5.32	5.31	5.44
1925	5.30	5.25	5.24	5.24	5.19	5.15	5.17	5.21	5.18	5.17	5.14	5.14	5.20
1926	5.07	5.04	5.05	4.99	4.94	4.92	4.95	4.95	4.97	4.95	4.93	4.89	4.97
1927	4.87	4.87	4.83	4.80	4.79	4.80	4.80	4.73	4.73	4.69	4.65	4.62	4.77
1928	4.61	4.61	4.59	4.60	4.64	4.75	4.79	4.82	4.79	4.78	4.75	4.77	4.71
1929	4.79	4.86	4.92	4.91	4.91	4.98	4.97	4.99	5.01	5.01	4.94	4.84	4.93
1930	4.86	4.89	4.80	4.78	4.77	4.76	4.74	4.68	4.65	4.67	4.75	4.85	4.77
1931	4.70	4.70	4.67	4.76	4.76	4.81	4.81	4.85	5.08	5.57	5.61	6.26	5.05
1932	6.08	6.13	5.85	6.11	6.38	6.60	6.51	5.83	5.54	5.51	5.57	5.60	5.98
1933	5.30	5.35	5.61	5.81	5.40	5.09	4.83	4.77	4.96	4.97	5.35	5.27	5.23
1934	5.00	4.70	4.55	4.43	4.37	4.30	4.28	4.34	4.42	4.36	4.28	4.27	4.44
1935	4.21	4.13	4.11	4.08	4.03	3.99	3.89	3.87	3.85	3.82	3.73	3.65	3.95
1936	3.57	3.55	3.55	3.57	3.53	3.51	3.48	3.44	3.41	3.37	3.31	3.28	3.46
1937	3.30	3.40	3.50	3.57	3.48	3.43	3.41	3.41	3.46	3.53	3.54	3.50	3.46
1938	3.50	3.51	3.56	3.73	3.56	3.68	3.62	3.57	3.60	3.53	3.46	3.42	3.56
1939	3.32	3.26	3.22	3.22	3.16	3.13	3.07	3.11	3.49	3.35	3.16	3.14	3.22
1940	3.08	3.05	3.04	2.99	3.08	3.10	3.01	3.03	3.01	3.01	2.96	2.92	3.02
1941	2.95	3.00	3.01	3.04	2.99	2.95	2.90	2.90	2.91	2.87	2.86	2.95	2.94
1942	2.96	2.98	3.00	2.98	3.00	3.01	2.99	2.99	2.98	2.95	2.94	2.96	2.98
1943	2.93	2.89	2.88	2.88	2.87	2.85	2.82	2.81	2.82	2.83	2.84	2.87	2.86
1944	2.83	2.83	2.82	2.82	2.81	2.81	2.80	2.79	2.79	2.81	2.80	2.76	2.81
1945	2.76	2.73	2.72	2.73	2.72	2.69	2.68	2.70	2.70	2.70	2.66	2.68	2.71

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - COMPOSITE AND ACCORDING TO RATINGS30 DOMESTIC CORPORATIONS - RATING A

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
1920	6.88	7.15	7.11	7.34	7.60	7.58	7.62	7.69	7.48	7.34	7.45	7.71	7.41
1921	7.52	7.50	7.53	7.53	7.50	7.58	7.53	7.43	7.23	7.03	6.62	6.39	7.28
1922	6.41	6.33	6.22	6.05	5.93	5.97	5.88	5.85	5.79	5.91	5.99	6.04	6.03
1923	6.04	6.07	6.24	6.25	6.17	6.19	6.21	6.06	6.15	6.23	6.22	6.22	6.17
1924	6.16	6.18	6.10	6.09	6.00	5.90	5.79	5.84	5.83	5.78	5.72	5.72	5.93
1925	5.70	5.61	5.66	5.63	5.46	5.44	5.51	5.56	5.53	5.54	5.51	5.46	5.55
1926	5.38	5.33	5.34	5.27	5.18	5.15	5.21	5.23	5.23	5.23	5.17	5.16	5.24
1927	5.11	5.13	5.12	5.06	5.05	5.06	5.04	5.01	5.01	4.97	4.94	4.92	5.04
1928	4.91	4.92	4.92	4.91	4.96	5.07	5.09	5.10	5.07	5.04	4.99	5.08	5.01
1929	5.10	5.14	5.24	5.23	5.24	5.31	5.32	5.39	5.43	5.38	5.33	5.21	5.28
1930	5.23	5.25	5.15	5.12	5.07	5.08	5.06	5.00	4.94	5.06	5.21	5.43	5.13
1931	5.26	5.29	5.30	5.52	5.65	5.75	5.64	5.88	6.29	6.88	6.90	7.70	6.01
1932	7.06	7.06	6.80	7.48	8.40	8.50	8.19	6.84	6.45	6.44	6.53	6.61	7.20
1933	6.16	6.30	6.64	6.85	6.29	5.88	5.58	5.51	5.70	5.76	6.22	6.21	6.09
1934	5.72	5.24	5.12	4.97	4.96	4.96	4.93	5.09	5.17	5.00	4.93	4.86	5.08
1935	4.74	4.63	4.67	4.69	4.59	4.52	4.46	4.49	4.48	4.49	4.45	4.35	4.55
1936	4.21	4.12	4.10	4.12	4.11	4.09	4.05	3.99	3.94	3.90	3.85	3.78	4.02
1937	3.77	3.85	3.97	4.04	3.98	3.96	3.94	3.94	4.02	4.16	4.24	4.20	4.01
1938	4.20	4.24	4.34	4.49	4.28	4.41	4.21	4.13	4.20	4.08	4.02	4.02	4.22
1939	3.97	3.94	3.87	3.97	3.92	3.86	3.83	3.80	4.05	3.94	3.78	3.74	3.89
1940	3.69	3.68	3.65	3.59	3.65	3.70	3.57	3.55	3.52	3.48	3.40	3.36	3.57
1941	3.36	3.38	3.37	3.38	3.34	3.31	3.26	3.24	3.24	3.21	3.19	3.27	3.30
1942	3.30	3.29	3.32	3.30	3.31	3.31	3.28	3.27	3.26	3.24	3.24	3.23	3.28
1943	3.20	3.17	3.14	3.14	3.13	3.11	3.09	3.08	3.10	3.10	3.11	3.13	3.13
1944	3.11	3.10	3.10	3.09	3.07	3.07	3.05	3.04	3.05	3.01	3.01	2.98	3.06
1945	2.98	2.94	2.92	2.90	2.88	2.86	2.85	2.85	2.85	2.84	2.79	2.81	2.87

MOODY'S BOND YIELD AVERAGESBASED ON BONDS OF 120 DOMESTIC CORPORATIONS - COMPOSITE AND ACCORDING TO RATINGS30 DOMESTIC CORPORATIONS - RATING BAA

<u>Year</u>	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Av.</u>
1920	7.78	7.94	7.97	8.17	8.39	8.39	8.52	8.39	8.14	7.99	8.21	8.56	8.20
1921	8.50	8.42	8.55	8.53	8.52	8.56	8.48	8.51	8.34	8.34	7.88	7.61	8.35
1922	7.70	7.55	7.45	7.14	6.89	6.97	6.89	6.85	6.75	6.78	6.98	7.02	7.08
1923	6.98	6.97	7.09	7.17	7.17	7.21	7.34	7.38	7.38	7.46	7.40	7.38	7.24
1924	7.24	7.14	7.08	7.03	6.97	6.82	6.67	6.69	6.73	6.62	6.54	6.46	6.83
1925	6.44	6.36	6.36	6.41	6.30	6.18	6.20	6.24	6.20	6.17	6.17	6.15	6.27
1926	6.09	6.02	6.05	5.98	5.86	5.80	5.79	5.81	5.79	5.81	5.77	5.68	5.87
1927	5.61	5.59	5.54	5.48	5.50	5.55	5.55	5.48	5.42	5.38	5.35	5.32	5.48
1928	5.35	5.33	5.32	5.33	5.42	5.55	5.58	5.61	5.59	5.58	5.55	5.60	5.48
1929	5.63	5.66	5.79	5.80	5.80	5.94	5.95	6.04	6.12	6.11	6.03	5.95	5.90
1930	5.92	5.89	5.73	5.70	5.72	5.78	5.77	5.73	5.65	5.94	6.25	6.71	5.90
1931	6.41	6.38	6.44	6.72	7.15	7.36	7.08	7.47	8.07	9.04	8.93	10.42	7.62
1932	9.13	8.87	8.83	10.46	11.63	11.52	10.79	8.22	7.61	7.87	8.24	8.42	9.30
1933	8.01	8.37	8.91	9.12	7.74	7.07	6.62	6.77	7.27	7.49	7.98	7.75	7.76
1934	7.01	6.27	6.26	6.01	6.05	6.06	6.13	6.49	6.57	6.40	6.37	6.23	6.32
1935	5.98	5.95	6.20	6.13	5.94	5.77	5.67	5.58	5.53	5.54	5.43	5.50	5.75
1936	5.00	4.80	4.86	4.91	4.94	4.90	4.84	4.74	4.62	4.54	4.52	4.53	4.77
1937	4.49	4.53	4.68	4.84	4.84	4.93	4.91	4.92	5.16	5.52	5.82	5.73	5.03
1938	5.89	5.97	6.30	6.47	6.06	6.25	5.63	5.49	5.65	5.36	5.23	5.27	5.80
1939	5.12	5.05	4.89	5.15	5.07	4.91	4.84	4.85	5.00	4.88	4.85	4.92	4.96
1940	4.86	4.83	4.80	4.74	4.94	5.11	4.80	4.76	4.66	4.56	4.48	4.45	4.75
1941	4.38	4.42	4.38	4.33	4.32	4.31	4.28	4.27	4.30	4.28	4.28	4.38	4.33
1942	4.29	4.29	4.30	4.26	4.27	4.33	4.30	4.28	4.26	4.24	4.24	4.28	4.28
1943	4.16	4.08	4.01	3.96	3.91	3.88	3.81	3.81	3.93	3.82	3.83	3.82	3.91
1944	3.76	3.72	3.70	3.68	3.63	3.59	3.57	3.55	3.56	3.55	3.53	3.49	3.61
1945	3.46	3.41	3.38	3.36	3.32	3.29	3.26	3.26	3.24	3.20	3.10	3.15	3.29